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THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
NOTES ON THE LABORATORY

EXPERIMENTAL

1. Preparation of the sample
2. Measurement of the rate
3. Calculation of the rate constant
4. Determination of the activation energy
5. Discussion of the results

1. Preparation of the sample

2. Measurement of the rate

3. Calculation of the rate constant

4. Determination of the activation energy

THEORY

1. Rate of reaction
2. Rate constant

3. Activation energy

4. Arrhenius equation

5. Effect of temperature

6. Effect of concentration

NOVEMBER 1959

TRADE IN GRAIN FUTURES

U. S. DEPARTMENT OF AGRICULTURE

WASHINGTON 25, D. C.

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OF THE

NAVY

NAVY DEPARTMENT

WASHINGTON

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KEY: a- asked price b- bid price n- nominal quotation

The open contract figures shown in this publication are aggregates of positions (one side only) reported by clearing members.

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Table 1. WHEAT: Volume of trading, all futures combined, by markets
November 1959

Date	Chicago Board of Trade	Minneapolis Grain Exchange	Kansas City Board of Trade	Other contract markets	Total
1959	1,000	1,000	1,000	1,000	1,000
November	bushels	bushels	bushels	bushels	bushels
Sunday					
2	4,689	1,502	807	119	7,117
3	5,630	663	819	68	7,180
4	8,604	861	1,192	85	10,742
5	8,367	1,081	723	176	10,347
6	5,070	654	1,331	41	7,096
Saturday					
Sunday					
9	10,661	1,390	718	162	12,931
10	9,765	777	801	156	11,499
11	5,374	581	990	109	7,054
12	5,134	380	1,074	75	6,663
13	11,471	418	696	92	12,677
Saturday					
Sunday					
16	5,734	420	367	100	6,621
17	7,125	643	762	89	8,619
18	5,486	765	527	106	6,884
19	10,248	620	1,030	125	12,023
20	11,422	686	1,129	120	13,357
Saturday					
Sunday					
23	7,902	1,374	1,194	89	10,559
24	6,101	1,060	1,027	147	8,335
25	6,133	649	1,728	83	8,593
Holiday					
27	6,110	607	879	39	7,635
Saturday					
Sunday					
30	17,003	633	1,755	96	19,487
Total					
Nov. 1959	158,029	15,764	19,549	2,077	195,419
Oct. 1959	141,828	17,454	21,675	2,391	183,348
Nov. 1958	216,919	20,714	31,354	4,077	273,064

Table 2. WHEAT: Volume of trading, Chicago Board of Trade
November 1959

Date	Future					All futures
	December	March	May	July	September	
1959 November	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels
Sunday						
2	1,690	1,725	812	432	30	4,689
3	1,960	1,733	1,484	373	80	5,630
4	3,373	2,524	2,170	452	85	8,604
5	2,716	2,498	1,735	1,262	156	8,367
6	2,748	1,483	704	93	42	5,070
Saturday						
Sunday						
9	4,205	3,992	1,936	438	90	10,661
10	2,823	3,904	2,243	725	70	9,765
11	1,834	2,164	971	248	157	5,374
12	2,003	1,871	1,165	84	11	5,134
13	4,844	3,774	2,413	395	45	11,471
Saturday						
Sunday						
16	1,815	2,401	1,023	399	96	5,734
17	2,790	2,596	1,440	254	45	7,125
18	2,041	2,506	843	71	25	5,486
19	4,631	4,082	1,165	338	32	10,248
20	2,849	5,283	2,762	453	75	11,422
Saturday						
Sunday						
23	3,041	3,167	1,188	426	80	7,902
24	1,848	3,030	794	319	110	6,101
25	1,708	2,931	1,321	125	48	6,133
Holiday						
27	2,465	2,265	1,072	198	110	6,110
Saturday						
Sunday						
30	8,160	6,383	1,971	469	20	17,003
Total						
Nov. 1959	59,544	60,312	29,212	7,554	1,407	158,029
Oct. 1959	62,295	44,614	30,001	3,648	1,270	141,828
Nov. 1958	83,506	56,164	46,125	25,050	6,074	216,919

Table 3. WHEAT: Open contracts, all futures combined, by markets
November 1959

Date	Chicago Board of Trade	Minneapolis Grain Exchange	Kansas City Board of Trade	Other contract markets	Total
1959	1,000	1,000	1,000	1,000	1,000
November	<u>bushels</u>	<u>bushels</u>	<u>bushels</u>	<u>bushels</u>	<u>bushels</u>
Sunday					
2	101,101	7,583	13,219	700	122,603
3	100,587	7,568	12,928	714	121,797
4	100,546	7,796	12,635	723	121,700
5	100,132	7,788	12,703	710	121,333
6	99,579	7,793	12,483	698	120,553
Saturday					
Sunday					
9	99,734	7,494	12,594	663	120,485
10	98,778	7,419	12,579	643	119,419
11	98,519	7,294	12,769	659	119,241
12	98,266	7,311	12,742	647	118,966
13	97,434	7,279	12,648	638	117,999
Saturday					
Sunday					
16	96,962	7,352	12,684	642	117,640
17	96,160	7,395	12,746	647	116,948
18	96,245	7,376	12,634	660	116,915
19	94,829	7,243	12,569	664	115,305
20	93,402	7,186	12,407	661	113,656
Saturday					
Sunday					
23	92,383	6,962	12,160	663	112,168
24	91,878	6,794	12,144	644	111,460
25	91,753	6,713	12,106	642	111,214
Holiday					
27	91,234	6,620	12,010	639	110,503
Saturday					
Sunday					
30	88,052	6,533	11,787	606	106,978

Table 4. WHEAT: Open contracts, Chicago Board of Trade
November 1959

Future							All
Date	December	March	May	July	September	futures	
1959	1,000	1,000	1,000	1,000	1,000	1,000	1,000
November	bushels	bushels	bushels	bushels	bushels	bushels	bushels
Sunday							
2	30,810	40,176	18,961	7,040	4,114		101,101
3	30,059	40,148	19,069	7,147	4,164		100,587
4	29,836	39,724	19,512	7,264	4,210		100,546
5	28,969	39,479	19,938	7,481	4,265		100,132
6	28,647	39,125	19,994	7,513	4,300		99,579
Saturday							
Sunday							
9	28,079	39,420	20,288	7,597	4,350		99,734
10	27,558	39,123	20,312	7,405	4,380		98,778
11	27,265	39,070	20,196	7,482	4,506		98,519
12	27,046	39,088	20,137	7,489	4,506		98,266
13	26,103	38,760	20,596	7,464	4,511		97,434
Saturday							
Sunday							
16	25,500	38,814	20,561	7,550	4,537		96,962
17	24,404	38,961	20,655	7,583	4,557		96,160
18	23,880	39,429	20,787	7,582	4,567		96,245
19	22,305	39,398	20,963	7,585	4,578		94,829
20	21,364	39,119	20,802	7,544	4,573		93,402
Saturday							
Sunday							
23	19,919	39,488	20,884	7,489	4,603		92,383
24	18,940	39,975	20,824	7,491	4,648		91,878
25	18,135	40,554	20,891	7,528	4,645		91,753
Holiday							
27	17,428	40,643	20,846	7,617	4,700		91,234
Saturday							
Sunday							
30	14,561	40,760	20,532	7,489	4,710		88,052

Table 5. WHEAT: Daily closing prices, at Chicago, Minneapolis and Kansas City
November 1959

1959 December future			
Date	Chicago Board of Trade	Minneapolis Grain Exchange	Kansas City Board of Trade
1959 November	Cents	Cents	Cents
Sunday			
2	200 5/8	215 5/8-3/4	202 1/4
3	200 1/2	215 1/2	201 1/4
4	200-200 1/8	216	200 7/8
5	199 3/4-7/8	216 1/4	200 1/2
6	199 7/8-200	216 3/8	200
Saturday			
Sunday			
9	201	216 1/2	200 5/8
10	202-02 1/8	216 7/8	201 1/8
11	201 1/2	216 1/2	200 1/2-5/8
12	201 5/8-3/4	216 3/8	200 3/4
13	202 3/4-1/2	216 3/4	201 1/4
Saturday			
Sunday			
16	202-201 7/8	216 1/4	200 3/4
17	201-01 1/8	216 1/2	200 3/8
18	200 5/8-3/4	216 1/2	200 3/8
19	199 3/8-1/2	216	200 1/4-1/8
20	198 3/8-1/2	215 5/8	199 5/8
Saturday			
Sunday			
23	197 7/8-198	214 1/2	199 3/8-1/4
24	198 5/8-3/4	214 5/8	200 3/8
25	199	215	200 1/2
Holiday			
27	198 3/8-1/2	215 1/8	200 7/8
Saturday			
Sunday			
30	198 1/4-1/8	215 1/8	200 3/8

Table 6. WHEAT: High, low and closing prices, three principal futures, Chicago Board of Trade, November 1959

Date	1959 December future			1960 March future			1960 May future		
	:High	Low	Closing	:High	Low	Closing	:High	Low	Closing
1959									
November	:Cents	<u>Cents</u>	<u>Cents</u>	:Cents	<u>Cents</u>	<u>Cents</u>	:Cents	<u>Cents</u>	<u>Cents</u>
Sunday	:	:	:	:	:	:	:	:	:
2	:201	200 3/8	200 5/8	:204 7/8	204 1/4	204 5/8-1/2	:201 3/8	200 7/8	201 1/8
3	:200 3/4	200 3/8	200 1/2	:204 3/4	204 1/4	204 1/4-3/8	:201 1/2	200 5/8	200 5/8-3/4
4	:200 1/2	199 7/8	200-200 1/8	:204 1/2	203 1/2	203 7/8-3/4	:200 3/4	199 3/4	200
5	:200 1/2	199 3/4	199 3/4-7/8	:204 1/4	203 1/4	203 1/4-3/8	:200 1/2	199 1/2	199 1/2-5/8
6	:200 3/8	199 3/4	199 7/8-200	:203 7/8	203 3/8	203 3/4	:200 1/8	199 1/2	199 3/4-200
Saturday	:	:	:	:	:	:	:	:	:
Sunday	:	:	:	:	:	:	:	:	:
9	:201 1/2	200 1/8	201	:205 1/2	204 1/4	205-204 7/8	:201 1/2	200	201
10	:202 1/4	200 7/8	202-202 1/8	:206 1/4	204 7/8	205 7/8-206	:202	200 7/8	201 5/8-1/2
11	:202 3/8	201 1/4	201 1/2	:206 1/4	205 1/4	205 1/4-3/8	:201 7/8	201 1/8	201 1/4
12	:201 3/4	201 1/4	201 5/8-3/4	:205 5/8	204 7/8	205 1/2	:201 5/8	201	201 5/8
13	:203	201 3/4	202 3/4-1/2	:206 5/8	205 1/2	206 1/2-3/8	:202 1/2	201 5/8	202 3/8-1/2
Saturday	:	:	:	:	:	:	:	:	:
Sunday	:	:	:	:	:	:	:	:	:
16	:202 7/8	201 3/4	202-201 7/8	:206 3/4	205 5/8	205 3/4-5/8	:202 5/8	201 5/8	201 5/8
17	:202 1/8	200 7/8	201-01 1/8	:205 7/8	205	205-05 1/8	:201 7/8	200 7/8	201-01 1/8
18	:201 1/8	200 1/4	200 5/8-3/4	:205 1/4	204 3/8	204 7/8-205	:201 3/8	200 3/4	201 1/8-201
19	:200 7/8	199 3/8	199 3/8-1/2	:205 1/4	204	204 1/8-204	:201 1/2	200 3/8	200 1/2-3/8
20	:199	198 1/8	198 3/8-1/2	:203 1/2	202	203-03 1/8	:200	198 5/8	199 1/2-5/8
Saturday	:	:	:	:	:	:	:	:	:
Sunday	:	:	:	:	:	:	:	:	:
23	:198 3/4	197 3/4	197 7/8-198	:203 1/2	202 5/8	202 3/4	:200	199 1/8	199 1/4
24	:199	197 7/8	198 5/8-3/4	:203 7/8	202 7/8	203 5/8	:200 1/4	199 1/4	200 1/8
25	:199 5/8	198 1/2	199	:204 1/2	203 1/2	203 3/4-7/8	:200 7/8	199 3/4	200-200 1/8
Holiday	:	:	:	:	:	:	:	:	:
27	:199 1/8	198 1/4	198 3/8-1/2	:204	203	203 1/4-3/8	:200 1/4	199 3/8	199 3/8
Saturday	:	:	:	:	:	:	:	:	:
Sunday	:	:	:	:	:	:	:	:	:
30	:199	197 7/8	198 1/4-1/8	:204 1/8	203 1/8	203 1/4-3/8	:200	199 1/8	199 1/4-3/8

Table 7. WHEAT: Commitments of traders
all contract markets ¹ combined,
October 31, and November 30, 1959

(In thousands of bushels)

Class ² /	October 31, 1959		November 30, 1959		Net Change	
	Long	Short	Long	Short	Long	Short
Large traders						
Speculative						
Long or short only	14,770	1,168	13,576	2,246	- 1,194	+ 1,078
Long and short (spreading)	23,829	23,829	18,798	18,798	- 5,031	- 5,031
Total	38,599	24,997	32,374	21,044	- 6,225	- 3,953
Hedging	18,561	71,790	14,592	60,463	- 3,969	-11,327
Total reported by large traders	57,160	96,787	46,966	81,507	-10,194	-15,280
Small traders						
Speculative and hedging	66,230	26,603	60,016	25,475	- 6,214	- 1,128
Total commitments (open contracts)						
All contract markets	123,390	123,390	106,982	106,982	-16,408	-16,408
Percent of total commit- ments held by:						
Large traders	46.3	78.4	43.9	76.2	- 2.4	- 2.2
Small traders	53.7	21.6	56.1	23.8	+ 2.4	+ 2.2

¹/ Chicago Board of Trade, Kansas City Board of Trade, Minneapolis Grain Exchange, Chicago Open Board of Trade and Milwaukee Grain Exchange.

²/ The commitments of large traders, those holding positions of 200,000 bushels or more in one future on one market, are shown as classified by them in regular reports to the Commodity Exchange Authority. The commitments of small traders are derived by subtracting reporting traders commitments from total commitments, and include both speculative and hedging positions.

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1. The first part of the paper is devoted to a discussion of the general properties of the system. It is shown that the system is stable and that the solution is unique. The second part of the paper is devoted to a discussion of the asymptotic behavior of the system. It is shown that the system converges to a steady state and that the convergence is exponential. The third part of the paper is devoted to a discussion of the numerical solution of the system. It is shown that the system can be solved numerically and that the numerical solution is accurate. The fourth part of the paper is devoted to a discussion of the physical interpretation of the results. It is shown that the results are in good agreement with the experimental data.

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Table 8. CORN: Volume of trading, all futures combined, by markets
November 1959

Date	Chicago Board of Trade	Other contract markets	Total
1959	1,000	1,000	1,000
November	<u>bushels</u>	<u>bushels</u>	<u>bushels</u>
Sunday			
2	8,408	19	8,427
3	15,321	76	15,397
4	19,061	62	19,123
5	11,362	118	11,480
6	9,372	83	9,455
Saturday			
Sunday			
9	10,101	15	10,116
10	12,117	52	12,169
11	10,102	79	10,181
12	9,303	49	9,352
13	8,806	33	8,839
Saturday			
Sunday			
16	9,893	10	9,903
17	6,098	32	6,130
18	5,263	22	5,285
19	6,936	17	6,953
20	13,771	53	13,824
Saturday			
Sunday			
23	10,779	23	10,802
24	7,483	16	7,499
25	6,605	45	6,650
Holiday			
27	6,856	28	6,884
Saturday			
Sunday			
30	10,311	45	10,356
Total			
Nov. 1959	197,948	877	198,825
Oct. 1959	130,898	408	131,306
Nov. 1958	216,479	1,068	217,547

Table 9. CORN: Volume of trading, Chicago Board of Trade
November 1959

Date	Future					All futures
	December	March	May	July	September	
1959 November	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels
Sunday						
2	4,477	2,629	980	267	55	8,408
3	7,028	4,113	3,247	788	145	15,321
4	9,240	6,743	2,117	840	121	19,061
5	6,019	3,031	1,784	368	160	11,362
6	4,587	2,922	1,282	544	37	9,372
Saturday						
Sunday						
9	5,256	2,485	1,772	517	71	10,101
10	5,418	3,354	2,075	876	394	12,117
11	6,028	2,188	1,163	613	110	10,102
12	4,429	2,625	1,593	605	51	9,303
13	4,326	2,074	1,689	555	162	8,806
Saturday						
Sunday						
16	4,845	2,319	1,698	729	302	9,893
17	3,327	1,175	840	574	182	6,098
18	3,243	1,014	701	275	30	5,263
19	3,357	2,192	919	322	146	6,936
20	5,917	3,783	2,496	1,055	520	13,771
Saturday						
Sunday						
23	4,792	2,631	2,020	784	552	10,779
24	3,506	2,042	903	652	380	7,483
25	3,236	1,918	1,174	256	21	6,605
Holiday						
27	3,288	2,291	931	321	25	6,856
Saturday						
Sunday						
30	5,080	3,097	1,754	368	12	10,311
Total						
Nov. 1959	97,399	54,626	31,138	11,309	3,476	197,948
Oct. 1959	77,340	27,347	18,397	6,091	1,723	130,898
Nov. 1958	101,853	57,092	32,881	16,342	8,311	216,479

Table 10. CORN: Open contracts, all futures combined, by markets
November 1959

Date	Chicago Board of Trade	Other contract markets	Total
1959	1,000	1,000	1,000
November	bushels	bushels	bushels
Sunday			
2	67,007	311	67,318
3	68,785	305	69,090
4	69,078	316	69,394
5	69,247	314	69,561
6	70,903	349	71,252
Saturday			
Sunday			
9	72,057	359	72,416
10	73,318	387	73,705
11	74,199	379	74,578
12	74,436	402	74,838
13	74,111	407	74,518
Saturday			
Sunday			
16	74,605	411	75,016
17	74,196	390	74,586
18	74,294	410	74,704
19	74,016	407	74,423
20	75,345	419	75,764
Saturday			
Sunday			
23	77,219	421	77,640
24	76,598	426	77,024
25	76,666	406	77,072
Holiday			
27	77,024	385	77,409
Saturday			
Sunday			
30	77,317	380	77,697

Table 11. CORN: Open contracts, Chicago Board of Trade
November 1959.

Date	Future					All futures
	December	March	May	July	September	
1959 November	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels
Sunday						
2	25,604	21,904	13,003	5,558	938	67,007
3	26,030	22,686	13,405	5,661	1,003	68,785
4	24,970	23,398	13,825	5,827	1,058	69,078
5	24,488	23,741	13,975	5,940	1,103	69,247
6	24,525	24,725	14,494	6,046	1,113	70,903
Saturday						
Sunday						
9	24,221	25,313	15,127	6,257	1,139	72,057
10	24,171	25,657	15,762	6,427	1,301	73,318
11	24,003	26,104	16,112	6,619	1,361	74,199
12	23,390	26,769	16,137	6,768	1,372	74,436
13	22,443	26,993	16,526	6,738	1,411	74,111
Saturday						
Sunday						
16	22,159	26,966	16,661	7,312	1,507	74,605
17	21,683	26,936	16,677	7,328	1,572	74,196
18	21,493	27,154	16,625	7,425	1,597	74,294
19	20,704	27,604	16,592	7,449	1,667	74,016
20	20,351	28,203	16,679	8,005	2,107	75,345
Saturday						
Sunday						
23	20,345	29,177	17,068	8,225	2,404	77,219
24	19,227	29,297	17,159	8,506	2,409	76,598
25	18,647	29,459	17,521	8,627	2,412	76,666
Holiday						
27	17,835	30,222	17,862	8,683	2,422	77,024
Saturday						
Sunday						
30	17,087	30,776	18,278	8,758	2,418	77,317

Table 12. CORN: High, low and closing prices, three principal futures, Chicago Board of Trade, November 1959

Date	1959 December future			1960 March future			1960 May future		
	:High	Low	Closing	:High	Low	Closing	:High	Low	Closing
1959									
November:	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents
Sunday									
2	:110 1/8	109 5/8	109 7/8	:114 1/4	113 7/8	114 1/8	:116 3/4	116 3/8	116 5/8
3	:112 1/8	109 7/8	111 1/4	:116 1/2	114	115 1/2	:119	116 5/8	118 1/8-1/4
4	:113 5/8	112	112 5/8-3/4	:119	116 1/8	116 3/4	:120 3/8	118 3/4	119 3/8-1/2
5	:113 3/4	112 5/8	112 7/8-113	:117 1/2	116 1/2	116 1/2-5/8	:120	119	119 1/8-119
6	:113 3/8	112 1/4	113 1/8-113	:117 1/8	116 1/8	117 1/8-117	:119 3/8	118 3/4	119 1/8-1/4
Saturday									
Sunday									
9	:113 1/8	112 3/4	112 7/8-3/4	:117	116 1/2	116 1/2	:119 1/4	118 1/4	118 3/8-1/4
10	:113 1/8	112 1/4	112 5/8-3/4	:116 1/2	115 7/8	116-16 1/8	:118 1/4	117 5/8	117 7/8-3/4
11	:113 1/2	112 1/2	112 7/8-3/4	:117	115 7/8	116 1/4-3/8	:119 1/8	117 7/8	118 1/4-3/8
12	:113	112 1/4	112 3/4	:117	116 1/8	116 3/4-7/8	:119 1/4	118 1/4	119
13	:113 1/8	112 3/4	112 3/4-7/8	:117 1/4	116 5/8	116 7/8-117	:119 1/2	119	119 3/8-1/4
Saturday									
Sunday									
16	:113	112 1/2	112 1/2	:117 3/4	116 1/2	116 5/8	:119 3/4	118 7/8	118 7/8-119
17	:112 7/8	112 1/4	112 5/8	:116 3/4	116 1/4	116 3/8	:119 1/8	118 5/8	118 3/4
18	:112 3/4	112 1/8	112 1/2	:116 1/2	116 1/8	116 3/8	:118 7/8	118 1/2	118 5/8-3/4
19	:112 1/2	111 5/8	111 3/4-5/8	:116 1/4	115 1/2	115 1/2	:118 1/2	117 3/4	117 3/4-7/8
20	:111 1/4	110 1/2	110 5/8-1/2	:115 1/8	114 1/2	114 1/2	:117 5/8	116 7/8	116 7/8
Saturday									
Sunday									
23	:111	110 1/8	110 1/8	:114 7/8	114	114 1/8-114	:117 3/8	116 3/4	116 3/4-7/8
24	:110 3/4	110 1/8	110 3/8-1/2	:114 3/4	114 1/4	114 3/8-1/2	:117 3/8	116 7/8	116 7/8
25	:110 7/8	110 1/4	110 1/2-5/8	:114 3/4	114 1/4	114 1/2-5/8	:117 1/4	116 3/4	116 7/8-117
Holiday									
27	:110 1/2	110	110-10 1/8	:114 1/2	114	114 1/8	:117	116 5/8	116 3/4-7/8
Saturday									
Sunday									
30	:110 1/2	110	110 1/8-1/4	:114 1/2	114	114 1/4-1/8	:117 1/8	116 5/8	116 3/4

Table 13. OATS: Volume of trading, all futures combined, by markets
November 1959

Date	Chicago Board of Trade	Minneapolis Grain Exchange	Other contract markets	Total
1959 November	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels
Sunday				
2	2,851	72	55	2,978
3	2,827	332	---	3,159
4	3,844	133	40	4,017
5	3,116	71	25	3,212
6	3,591	31	60	3,682
Saturday				
Sunday				
9	2,540	15	5	2,560
10	3,087	120	10	3,217
11	3,646	123	52	3,821
12	3,387	29	52	3,468
13	1,428	40	42	1,510
Saturday				
Sunday				
16	3,884	21	89	3,994
17	1,785	14	2	1,801
18	2,176	80	8	2,264
19	2,746	109	32	2,887
20	3,580	90	30	3,700
Saturday				
Sunday				
23	2,641	14	42	2,697
24	1,298	22	---	1,320
25	1,531	80	10	1,621
Holiday				
27	1,353	66	40	1,459
Saturday				
Sunday				
30	2,122	21	106	2,249
Total				
Nov. 1959	53,433	1,483	700	55,616
Oct. 1959	47,672	1,312	442	49,426
Nov. 1958	46,002	2,135	204	48,341

Table 14. OATS: Volume of trading, Chicago Board of Trade
November 1959

Date	Future					All futures
	December	March	May	July	September	
1959	1,000	1,000	1,000	1,000	1,000	1,000
November	bushels	bushels	bushels	bushels	bushels	bushels
Sunday						
2	851	946	579	450	25	2,851
3	672	889	870	296	100	2,827
4	1,027	1,382	1,086	294	55	3,844
5	1,281	664	834	287	50	3,116
6	1,162	1,166	974	289	---	3,591
Saturday						
Sunday						
9	713	1,043	560	219	5	2,540
10	1,345	853	542	307	40	3,087
11	829	1,683	897	237	---	3,646
12	914	1,418	847	166	42	3,387
13	537	314	488	79	10	1,428
Saturday						
Sunday						
16	1,050	1,483	1,057	259	35	3,884
17	508	522	482	253	20	1,785
18	602	721	719	120	14	2,176
19	437	1,149	920	195	45	2,746
20	675	1,410	973	387	135	3,580
Saturday						
Sunday						
23	849	851	886	40	15	2,641
24	494	396	298	95	15	1,298
25	468	551	450	57	5	1,531
Holiday						
27	588	441	279	45	---	1,353
Saturday						
Sunday						
30	660	585	822	50	5	2,122
Total						
Nov. 1959	15,662	18,467	14,563	4,125	616	53,433
Oct. 1959	23,780	12,769	8,650	2,368	105	47,672
Nov. 1958	22,328	10,384	10,907	2,383	---	46,002

Table 15. OATS: Open contracts, all futures combined, by markets
November 1959

Date	: Chicago : Board of : Trade	: Minneapolis : Grain : Exchange	: Other : contract : markets	: : :	Total
1959	1,000	1,000	1,000		1,000
November	<u>bushels</u>	<u>bushels</u>	<u>bushels</u>		<u>bushels</u>
Sunday					
2	29,898	798	245		30,941
3	30,199	790	245		31,234
4	30,318	796	225		31,339
5	30,289	806	215		31,310
6	29,930	795	225		30,950
Saturday					
Sunday					
9	30,112	789	225		31,126
10	29,652	793	220		30,665
11	29,796	732	228		30,756
12	29,775	745	245		30,765
13	29,781	768	207		30,756
Saturday					
Sunday					
16	29,662	771	250		30,683
17	29,515	768	250		30,533
18	29,743	756	252		30,751
19	29,633	838	280		30,751
20	29,203	827	310		30,340
Saturday					
Sunday					
23	29,475	832	312		30,619
24	29,547	834	312		30,693
25	29,206	834	302		30,342
Holiday					
27	28,989	843	282		30,114
Saturday					
Sunday					
30	28,981	836	281		30,098

Table 16. OATS: Open contracts, Chicago Board of Trade
November 1959

Date	Future					All futures
	December	March	May	July	September	
1959 November	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels
Sunday						
2	9,708	11,167	7,139	1,754	130	29,898
3	9,431	11,206	7,394	1,938	230	30,199
4	9,121	11,260	7,655	2,027	255	30,318
5	8,934	11,210	7,812	2,078	255	30,289
6	8,522	11,241	7,851	2,061	255	29,930
Saturday						
Sunday						
9	8,260	11,368	8,024	2,200	260	30,112
10	7,692	11,414	8,114	2,172	260	29,652
11	7,544	11,524	8,254	2,214	260	29,796
12	7,313	11,515	8,421	2,264	262	29,775
13	7,100	11,549	8,607	2,263	262	29,781
Saturday						
Sunday						
16	6,698	11,594	8,711	2,392	267	29,662
17	6,423	11,621	8,711	2,493	267	29,515
18	6,378	11,780	8,811	2,498	276	29,743
19	6,250	11,676	8,878	2,543	286	29,633
20	6,033	11,474	8,870	2,525	301	29,203
Saturday						
Sunday						
23	5,897	11,654	9,088	2,535	301	29,475
24	5,880	11,672	9,104	2,575	316	29,547
25	5,588	11,654	9,055	2,588	321	29,206
Holiday						
27	5,301	11,684	9,080	2,603	321	28,989
Saturday						
Sunday						
30	5,040	11,788	9,239	2,588	326	28,981

Table 17. OATS: Daily closing prices, at Chicago, Minneapolis and Winnipeg;
and rate of exchange, Canadian currency
November 1959

1959 December future				
Date	Chicago Board of Trade	Minneapolis Grain Exchange	Winnipeg Grain 1/ Exchange	Exchange Rate Canadian Currency 2/
1959	Cents	Cents	Cents	Cents
November				
Sunday				
2	76 1/2	69 7/8	85	105.6432
3	76 5/8-3/4	69 7/8	3/	3/
4	77-76 7/8	70	85 5/8 b	105.5755
5	77 1/8 a	69 1/2	86 1/8	105.6197
6	76 3/8-1/2	68 3/4	85 7/8 b	105.5963
Saturday				
Sunday				
9	76 3/4-7/8	69 1/2 a	85 5/8	105.5911
10	78 3/4-7/8	70 1/8 b	85 3/4	105.6536
11	78 3/4-7/8	70 7/8	3/	3/
12	78 1/2	70 3/8 b	85 3/4	105.5781
13	78 3/4	70 1/2	85 5/8 b	105.2838
Saturday				
Sunday				
16	77 1/4-1/8	69 1/2 a	84 7/8	105.1979
17	77 1/8-1/4	69 1/2	83	105.0989
18	78 1/4-3/8	70	82 5/8	104.8625
19	77 1/8-1/4	69 a	80 1/4	104.5989
20	76 3/4-5/8	68 7/8 b	80 7/8	104.7062
Saturday				
Sunday				
23	76 1/2	68 3/8 b	81 1/4 b	104.6562
24	76 7/8	68 5/8 b	81 3/4	104.8593
25	76 3/4-7/8	68 1/2 a	82 3/8	104.9661
Holiday				
27	76 5/8-1/2	68 3/8	82 3/4	105.0468
Saturday				
Sunday				
30	76 3/8-1/2	68 1/2	82 b	105.3411

1/ As reported by Chicago Board of Trade and converted to American currency at rates shown a

2/ Based on noon buying rates in New York certified for customs purposes by the Federal Reserve Bank of New York.

3/ Exchange rate not available on November 3 and 11, Federal Reserve Bank closed.

Table 18. OATS: High, low and closing prices, three principal futures, Chicago Board of Trade, November 1959

Date	1959 December future			1960 March future			1960 May future		
	: High	Low	Closing	: High	Low	Closing	: High	Low	Closing
1959									
November	: Cents	Cents	Cents	: Cents	Cents	Cents	: Cents	Cents	Cents
Sunday									
2	: 76 1/2	75 3/4	76 1/2	: 76 5/8	75 3/4	76 1/2	: 75	74	74 3/4
3	: 76 3/4	76 1/4	76 5/8-3/4	: 76 3/4	76 1/4	76 5/8-3/4	: 75 1/8	74 5/8	74 7/8
4	: 77 3/8	76 5/8	77-76 7/8	: 77 5/8	76 3/4	77-76 7/8	: 75 1/2	75	75 1/4
5	: 77 1/4	76 3/4	77 1/8 a	: 77 3/8	76 3/4	76 3/4	: 75 1/2	74 1/2	74 1/2
6	: 76 7/8	76	76 3/8-1/2	: 76 5/8	75 7/8	76 1/4	: 74 1/2	73 3/4	74 1/4-3/8
Saturday									
Sunday									
9	: 77	76 1/4	76 3/4-7/8	: 77 1/8	76 1/2	76 7/8-77	: 74 7/8	74 3/8	74 5/8 b
10	: 78 7/8	76 7/8	78 3/4-7/8	: 77 7/8	76 7/8	77 7/8	: 75 1/2	74 3/4	75 3/8-1/2
11	: 79	78 3/8	78 3/4-7/8	: 78 3/4	78	78 3/8	: 76 3/8	75 1/2	76
12	: 78 7/8	77 5/8	78 1/2	: 78 1/2	77 1/4	77 7/8	: 76 1/4	75	75 5/8
13	: 78 3/4	78 1/2	78 3/4	: 78 1/4	77 3/4	78	: 75 7/8	75 3/8	75 7/8 a
Saturday									
Sunday									
16	: 78 3/4	77	77 1/4-1/8	: 77 7/8	76 1/4	76 3/4	: 75 3/4	74 1/2	74 1/2 b
17	: 77 3/8	76 7/8	77 1/8-1/4	: 77	76 3/8	76 5/8	: 74 3/4	74 3/8	74 3/4
18	: 78 1/2	77	78 1/4-3/8	: 77 3/8	76 1/2	77 1/4	: 75	74 1/2	74 7/8
19	: 78 1/4	77	77 1/8-1/4	: 77 3/8	75 3/4	76 1/8	: 74 7/8	73 1/2	73 3/4-5/8
20	: 77	76 1/4	76 3/4-5/8	: 76 1/4	75 1/2	75 3/4-5/8	: 73 3/8	73	73 1/4-1/8
Saturday									
Sunday									
23	: 76 7/8	76 1/4	76 1/2	: 76 1/8	75 1/2	75 5/8	: 73 1/2	72 7/8	73-72 7/8
24	: 77	76 1/2	76 7/8	: 76 1/4	75 5/8	75 7/8-76	: 73 1/2	73	73 3/8
25	: 77 1/8	76 3/4	76 3/4-7/8	: 76 1/4	75 3/4	75 7/8	: 73 3/4	73 1/4	73 3/8-1/4
Holiday									
27	: 77	76 1/2	76 5/8-1/2	: 75 7/8	75 3/8	75 3/4 b	: 73 1/2	73 1/8	73 1/4 b
Saturday									
Sunday									
30	: 76 5/8	76 1/4	76 3/8-1/2	: 75 3/4	75 3/8	75 5/8	: 73 3/4	73 1/4	73 3/8

Table 19. RYE: Volume of trading, all futures combined, by markets
November 1959

Date	Chicago Board of Trade	Other contract markets	Total
1959 November	1,000 bushels	1,000 bushels	1,000 bushels
Sunday			
2	2,262	55	2,317
3	2,379	112	2,491
4	3,030	85	3,115
5	2,066	104	2,170
6	2,662	104	2,766
Saturday			
Sunday			
9	2,080	39	2,119
10	2,130	35	2,165
11	1,710	59	1,769
12	1,522	60	1,582
13	2,940	58	2,998
Saturday			
Sunday			
16	3,621	42	3,663
17	3,619	53	3,672
18	956	12	968
19	2,253	25	2,278
20	3,483	30	3,513
Saturday			
Sunday			
23	2,323	31	2,354
24	1,435	35	1,470
25	2,423	45	2,468
Holiday			
27	1,267	21	1,288
Saturday			
Sunday			
30	3,148	99	3,247
Total			
Nov. 1959	47,309	1,104	48,413
Oct. 1959	51,115	1,566	52,681
Nov. 1958	33,425	1,072	34,497

Table 20. RYE: Volume of trading, Chicago Board of Trade
November 1959

Date	Future					All futures
	December	March	May	July	September	
1959 November	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels
Sunday						
2	324	650	718	570		2,262
3	633	459	570	717		2,379
4	850	796	788	596		3,030
5	419	840	393	414		2,066
6	645	1,089	525	403		2,662
Saturday						
Sunday						
9	604	671	540	265		2,080
10	571	767	554	238		2,130
11	459	662	269	320		1,710
12	350	514	241	417		1,522
13	925	911	676	428		2,940
Saturday						
Sunday						
16	849	1,440	939	393		3,621
17	632	1,456	1,143	388		3,619
18	304	373	178	96	5	956
19	524	846	441	396	46	2,253
20	1,067	1,299	688	369	60	3,483
Saturday						
Sunday						
23	603	741	477	482	20	2,323
24	434	502	296	193	10	1,435
25	507	822	604	364	126	2,423
Holiday						
27	314	444	299	187	23	1,267
Saturday						
Sunday						
30	1,174	1,051	371	532	20	3,148
Total						
Nov. 1959	12,188	16,333	10,710	7,768	310	47,309
Oct. 1959	16,498	17,529	10,139	6,949	---	51,115
Nov. 1958	12,190	9,841	6,810	4,584	---	33,425

Table 21. RYE: Open contracts, all futures combined, by markets
November 1959

Date	Chicago Board of Trade	Other contract markets	Total
1959 November	1,000 bushels	1,000 bushels	1,000 bushels
Sunday			
2	22,512	464	22,976
3	22,709	459	23,168
4	22,893	445	23,338
5	22,776	465	23,241
6	22,953	452	23,405
Saturday			
Sunday			
9	23,025	439	23,464
10	23,260	448	23,708
11	23,300	438	23,738
12	23,344	452	23,796
13	23,416	440	23,856
Saturday			
Sunday			
16	23,898	462	24,360
17	23,738	448	24,186
18	23,568	451	24,019
19	23,559	457	24,016
20	23,436	462	23,898
Saturday			
Sunday			
23	23,283	455	23,738
24	23,230	460	23,690
25	23,167	463	23,630
Holiday			
27	23,223	454	23,677
Saturday			
Sunday			
30	23,055	376	23,431

Table 22. RYE: Open contracts, Chicago Board of Trade
November 1959

Date	Future					All futures
	December	March	May	July	September	
1959 November	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels
Sunday						
2	7,570	6,882	4,742	3,318		22,512
3	7,564	6,788	4,906	3,451		22,709
4	7,429	6,823	5,075	3,566		22,893
5	7,258	6,829	5,126	3,563		22,776
6	7,198	6,887	5,149	3,719		22,953
Saturday						
Sunday						
9	6,980	6,980	5,291	3,774		23,025
10	6,915	7,081	5,405	3,859		23,260
11	6,784	7,114	5,462	3,940		23,300
12	6,745	7,157	5,431	4,011		23,344
13	6,418	7,317	5,502	4,179		23,416
Saturday						
Sunday						
16	6,441	7,601	5,679	4,177		23,898
17	6,284	7,498	5,672	4,284		23,738
18	6,168	7,499	5,637	4,259	5	23,568
19	6,017	7,465	5,690	4,336	51	23,559
20	5,802	7,412	5,713	4,403	106	23,436
Saturday						
Sunday						
23	5,726	7,362	5,697	4,372	126	23,283
24	5,520	7,431	5,733	4,410	136	23,230
25	5,293	7,399	5,798	4,490	187	23,167
Holiday						
27	5,209	7,517	5,850	4,444	203	23,223
Saturday						
Sunday						
30	4,639	7,708	5,925	4,575	208	23,055

Table 23. RYE: Daily closing prices, at Chicago and Winnipeg
November 1959

Date	1959 December future	
	Chicago Board of Trade	Winnipeg Grain Exchange
1959 November	Cents	Cents
Sunday		
2	136	127 7/8
3	136 1/2	2/
4	136 3/8	128 3/4
5	135	127 1/2
6	134 3/8-1/2	127 3/4
Saturday		
Sunday		
9	133 7/8	125
10	133 3/4	125 3/4
11	133 1/2	2/
12	134 1/8	125 3/8
13	134 1/8-1/4	126 1/8
Saturday		
Sunday		
16	132 7/8-133	124 5/8
17	133	124 1/8 b
18	133	124 1/8
19	132 1/4	120 3/8
20	131 5/8-1/2	120 7/8 b
Saturday		
Sunday		
23	131 3/4	120 3/4
24	132 1/2	121 3/8 b
25	133 1/4	121 5/8
Holiday		
27	133	119 3/4
Saturday		
Sunday		
30	131 3/4	118 1/8 b

1/ As reported by the Chicago Board of Trade and converted to American currency at rates shown in Table 17.

2/ Exchange rate not available on November 3 and 11, Federal Reserve Bank closed.

Table 24. RYE: High, low and closing prices, three principal futures, Chicago Board of Trade, November 1959

Date	1959 December future			1960 March future			1960 May future		
	:High	Low	Closing	:High	Low	Closing	:High	Low	Closing
1959									
November:	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents
Sunday									
2	:136 1/4	135 1/2	136	:138 7/8	137 5/8	138 3/4	:137 3/4	136 1/2	137 3/8-1/2
3	:136 1/2	135 3/4	136 1/2	:139 1/4	138 3/8	139	:138	137	137 3/4
4	:137 1/4	136 1/4	136 3/8	:140	138 5/8	138 7/8	:138 3/4	137 1/2	137 3/4-7/8
5	:136 1/2	134 3/4	135	:139 3/8	137 3/8	137 3/8-5/8	:138	136 1/2	136 3/4
6	:134 3/4	134 1/8	134 3/8-1/2	:137 5/8	136 5/8	136 7/8-137	:136 3/4	135 3/4	136 1/2
Saturday									
Sunday									
9	:135 1/2	133 3/4	133 7/8	:138 1/4	136 5/8	136 7/8-3/4	:137 1/2	135 3/4	135 3/4
10	:133 3/4	133	133 3/4	:137	136	137-136 3/4	:135 3/4	135	135 5/8
11	:134 1/2	133 1/2	133 1/2	:137 5/8	136 1/4	136 5/8	:136 1/8	135 1/4	135 1/2
12	:134 1/8	133 1/8	134 1/8	:137 1/4	136 1/8	137 1/4	:135 7/8	135	135 7/8
13	:134 7/8	133 7/8	134 1/8-1/4	:138 3/8	137 1/2	137 5/8	:137	136 1/4	136 3/4
Saturday									
Sunday									
16	:134 1/8	132 3/4	132 7/8-133	:137 1/4	135 3/4	135 3/4	:136 3/4	135 1/4	135 3/8
17	:133	132	133	:135 3/4	134 1/2	135 1/2	:135 1/4	134	134 3/4
18	:133	132 1/4	133	:136	135 1/4	135 3/4	:135 1/4	134 1/2	135-35 1/4
19	:133	132	132 1/4	:135 3/4	134 1/4	134 1/4-1/2	:135 1/4	133 1/2	133 1/2-3/4
20	:132 3/4	131 1/2	131 5/8-1/2	:135	133 7/8	133 7/8-134 1/4	:134 1/2	133	133 5/8
Saturday									
Sunday									
23	:132 3/4	131 1/4	131 3/4	:134 3/4	133 3/4	133 7/8-134	:134 1/4	133	133 1/2-5/8
24	:133	131 3/4	132 1/2	:135 1/2	134	135-35 1/4	:134 3/4	133 5/8	134 1/2
25	:133 1/2	132	133 1/4	:135 3/4	134 5/8	135 3/4	:135 3/8	134	135 3/8
Holiday									
27	:133 1/4	132 3/8	133	:135 1/2	134 3/4	135 1/2	:135 1/2	134 3/8	135 1/4
Saturday									
Sunday									
30	:133 1/8	131 3/4	131 3/4	:135 3/4	134 1/2	134 7/8-135	:135 3/4	134 1/2	135

Table 25. SOYBEANS: Volume of trading, all futures combined, by markets
November 1959

Date	: Chicago Board of Trade	: Minneapolis Grain Exchange	: Chicago Open Board	: Total
1959	1,000	1,000	1,000	1,000
November	<u>bushels</u>	<u>bushels</u>	<u>bushels</u>	<u>bushels</u>
Sunday				
2	54,569	---	632	55,201
3	44,783	---	519	45,302
4	56,214	---	467	56,681
5	43,447	---	395	43,842
6	32,411	---	429	32,840
Saturday				
Sunday				
9	46,331	---	459	46,790
10	31,427	---	430	31,857
11	42,859	---	508	43,367
12	41,595	---	597	42,192
13	32,390	---	459	32,849
Saturday				
Sunday				
16	36,383	---	508	36,891
17	39,088	---	463	39,551
18	40,367	---	435	40,802
19	38,209	---	539	38,748
20	37,522	---	423	37,945
Saturday				
Sunday				
23	24,699	---	424	25,123
24	20,894	---	292	21,186
25	28,866	---	335	29,201
Holiday				
27	24,375	---	527	24,902
Saturday				
Sunday				
30	20,553	---	444	20,997
Total				
Nov. 1959	736,982	---	9,285	746,267
Oct. 1959	621,024	15	8,274	629,313
Nov. 1958	212,743	---	1,827	214,570

Table 26. SOYBEANS: Volume of trading, Chicago Board of Trade
November 1959

Date	Future						All futures
	November	January	March	May	July	September	
1959	1,000	1,000	1,000	1,000	1,000	1,000	1,000
November	bushels	bushels	bushels	bushels	bushels	bushels	bushels
Sunday							
2	10,815	12,647	12,599	13,054	5,454		54,569
3	6,779	11,522	10,869	11,456	4,157		44,783
4	7,621	13,359	15,680	13,644	5,910		56,214
5	6,706	12,900	10,937	8,735	4,169		43,447
6	3,723	8,896	8,084	8,375	3,333		32,411
Saturday							
Sunday							
9	5,396	11,680	12,927	10,958	5,370		46,331
10	2,931	7,319	9,408	7,065	4,704		31,427
11	3,213	10,609	13,971	9,871	5,195		42,859
12	3,698	10,646	13,125	9,881	4,245		41,595
13	3,494	8,019	9,417	7,742	3,718		32,390
Saturday							
Sunday							
16	4,197	9,346	11,458	7,811	3,571		36,383
17	4,869	10,972	10,384	8,587	4,276		39,088
18	13,375	9,027	8,205	7,142	2,618		40,367
19	---	10,426	10,340	10,816	5,423	1,204	38,209
20	---	9,988	11,099	10,186	5,519	730	37,522
Saturday							
Sunday							
23	---	6,652	6,366	7,677	3,494	510	24,699
24	---	6,173	4,856	6,693	2,884	288	20,894
25	---	6,993	6,708	9,437	5,079	649	28,866
Holiday							
27	---	6,504	6,060	6,704	4,486	621	24,375
Saturday							
Sunday							
30	---	4,788	5,412	6,392	3,400	561	20,553
Total							
Nov. 1959	76,817	188,466	197,905	182,226	87,005	4,563	736,982
Oct. 1959	204,336	139,754	131,946	101,367	43,621	---	621,024
Nov. 1958	22,963	90,350	56,520	28,001	12,331	2,578	212,743

Table 27. SOYBEANS: Open contracts, all futures combined, by markets.
November 1959

Date	Chicago Board of Trade	Minneapolis Grain Exchange	Chicago Open Board	Total
1959 November	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels
Sunday				
2	159,600	70	545	160,215
3	161,641	70	602	162,313
4	161,602	70	628	162,300
5	164,821	70	658	165,549
6	167,648	70	686	168,404
Saturday				
Sunday				
9	168,818	70	705	169,593
10	173,124	70	709	173,903
11	177,693	70	726	178,489
12	180,287	70	718	181,075
13	185,355	70	656	186,081
Saturday				
Sunday				
16	185,478	70	724	186,272
17	184,882	70	748	185,700
18	179,640	70	729	180,439
19	179,425	70	715	180,210
20	179,763	70	745	180,578
Saturday				
Sunday				
23	181,731	70	742	182,543
24	182,850	70	740	183,660
25	185,297	70	768	186,135
Holiday				
27	188,240	70	872	189,182
Saturday				
Sunday				
30	190,044	70	894	191,008

Table 28. SOYBEANS: Open contracts, Chicago Board of Trade
November 1959

Date	Future						All futures
	November	January	March	May	July	September	
1959	1,000	1,000	1,000	1,000	1,000	1,000	1,000
November	bushels	bushels	bushels	bushels	bushels	bushels	bushels
Sunday							
2	19,937	35,653	45,390	42,025	16,595		159,600
3	18,950	36,328	45,451	43,430	17,482		161,641
4	17,149	35,736	45,918	44,288	18,511		161,602
5	15,912	36,729	46,456	46,039	19,685		164,821
6	15,512	36,958	46,818	48,202	20,158		167,648
Saturday							
Sunday							
9	14,285	36,486	47,547	49,476	21,024		168,818
10	14,024	36,886	49,005	50,826	22,383		173,124
11	13,576	38,735	50,133	51,805	23,444		177,693
12	13,239	39,679	50,776	53,109	23,484		180,287
13	12,627	40,543	53,204	54,989	23,992		185,355
Saturday							
Sunday							
16	10,493	41,292	53,807	55,394	24,492		185,478
17	8,087	42,141	54,147	55,593	24,914		184,882
18	1,541	43,061	54,616	55,300	25,122		179,640
19	175	42,178	54,818	55,747	25,823	684	179,425
20	5	40,884	55,284	56,294	26,395	901	179,763
Saturday							
Sunday							
23	---	40,653	56,114	56,970	26,892	1,102	181,731
24	---	40,661	56,203	57,490	27,339	1,157	182,850
25	---	39,902	57,627	58,623	27,625	1,520	185,297
Holiday							
27	---	40,638	57,729	59,543	28,671	1,659	188,240
Saturday							
Sunday							
30	---	40,148	58,206	60,210	29,470	2,010	190,044

Table 29. SOYBEANS: High, low and closing prices, three principal futures, Chicago Board of Trade, November 1959

Date	1959 November futures			1960 January futures			1960 March futures		
	:High	Low	Closing	:High	Low	Closing	:High	Low	Closing
1959									
November:	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents
Sunday:									
2	:220 1/8	216 1/4	219 7/8-220	:224 3/8	221	224-24 1/8	:228 1/4	224 7/8	228-28 1/4
3	:221 1/2	219 1/8	221 1/8-1/4	:225 7/8	223 5/8	225 5/8-3/4	:229 3/4	227 3/8	229 1/4-3/8
4	:223 1/4	221 1/2	222-221 3/4	:227 1/4	225 1/2	225 5/8-3/4	:230 7/8	228 5/8	229-228 7/8
5	:224 3/4	222	222 3/8-1/2	:227 3/4	225 3/4	226 1/8-226	:230 5/8	228 7/8	229 1/8-1/4
6	:223 1/4	221 3/8	223-23 1/4	:226 7/8	225	226 7/8-1/2	:230 1/4	228	230-30 1/4
Saturday:									
Sunday:									
9	:224 1/2	222 1/2	223 3/8-1/2	:228 1/4	226 3/8	227 1/4-1/8	:232	230 1/4	230 1/2-5/8
10	:223 1/2	222 3/8	222 3/4-223	:227	226	226 1/2-5/8	:230 1/8	229 3/8	229 3/4-5/8
11	:223	220 5/8	220 3/4-5/8	:226 1/4	224 1/4	224 3/8-1/4	:229 3/8	227 1/4	227 3/8-1/4
12	:221 1/2	219 1/4	221 3/8-1/2	:224 3/4	222 7/8	224 3/4-5/8	:227 7/8	225 7/8	227 3/4-7/8
13	:222 1/2	221 1/8	221 3/8-1/4	:225 3/8	224	224 1/8-224	:228 1/2	226 7/8	227-226 7/8
Saturday:									
Sunday:									
16	:222 1/4	219 1/8	219 3/4-5/8	:225	222 1/8	222 3/8-1/4	:227 7/8	225 1/8	225 1/8-1/4
17	:220 3/4	218 1/2	220 3/4-5/8	:223	221 1/4	222 7/8-223	:226 1/4	224 1/4	226-26 1/8
18	:221 5/8	220 1/8	221 1/4-20 1/2	:223 5/8	222 1/4	223 1/8-1/4	:226 5/8	225 1/2	226 1/8-1/4
19	:---	---	---	:223 3/8	220 1/2	220 5/8-1/2	:226 3/8	223 3/4	223 3/4-7/8
20	:---	---	---	:220 3/4	219 3/8	219 1/2-3/4	:224	222 3/4	222 7/8-3/4
Saturday:									
Sunday:									
23	:---	---	---	:220 3/4	218 3/4	219 1/2-5/8	:224 1/8	222 1/4	223-23 1/8
24	:---	---	---	:220 7/8	219 5/8	219 7/8-220	:224 3/8	223 1/8	223 3/8-1/2
25	:---	---	---	:221	218 5/8	219 1/2-3/4	:224 1/2	222 1/8	223 1/8-223
Holiday:									
27	:---	---	---	:219 1/8	217 5/8	218 3/8-1/8	:222 5/8	221 1/2	222 1/4-1/2
Saturday:									
Sunday:									
30	:---	---	---	:218 5/8	217 1/4	217 7/8-218	:222 5/8	221 3/8	222- 22 1/4

Table 30. SOYBEANS: Commitments of traders
all contract markets ¹ combined,
October 31, and November 30, 1959

(In thousands of bushels)

Class ² /	October 31, 1959		November 30, 1959		Net Change	
	Long	Short	Long	Short	Long	Short
Large traders						
Speculative						
Long or short only	23,400	10,222	21,297	12,611	- 2,103	+ 2,389
Long and short (spreading)	32,394	32,394	38,795	38,795	+ 6,401	+ 6,401
Total	55,794	42,616	60,092	51,406	+ 4,298	+ 8,790
Hedging	14,920	58,129	10,659	85,785	- 4,261	+27,656
Total reported by large traders	70,714	100,745	70,751	137,191	+ 37	+36,446
Small traders						
Speculative and hedging	87,491	57,460	120,525	54,085	+33,034	- 3,375
Total commitments (open contracts)						
All contract markets	158,205	158,205	191,276	191,276	+33,071	+33,071
Percent of total commit- ments held by:						
Large traders	44.7	63.7	37.0	71.7	- 7.7	+ 8.0
Small traders	55.3	36.3	63.0	28.3	+ 7.7	- 8.0

¹/ Chicago Board of Trade, Minneapolis Grain Exchange and Chicago Open Board of Trade.

²/ The commitments of large traders, those holding positions of 200,000 bushels or more in one future on one market, are shown as classified by them in regular reports to the Commodity Exchange Authority. The commitments of small traders are derived by subtracting reporting traders commitments from total commitments, and include both speculative and hedging positions.

United States Department of Agriculture
COMMODITY EXCHANGE AUTHORITY
Rodger R. Kauffman, Administrator

Field Offices

Chicago 4, Illinois

Charles E. Robinson, In charge
1200 Board of Trade Bldg.

Kansas City 5, Missouri

L. E. Wolf, In charge
854 Board of Trade Bldg.

Minneapolis 15, Minnesota

Gerald J. Swoboda, In charge
510 Grain Exchange Bldg.

New Orleans 12, Louisiana

W. D. Espy, In charge
308 Cotton Exchange Bldg.

New York 4, New York

Roy Tipton, In charge
Room 202, 44 Beaver Street

Markets Supervised

Chicago Board of Trade
Chicago Mercantile Exchange
Chicago Open Board
Milwaukee Grain Exchange
Portland Grain Exchange
San Francisco Grain Exchange
Seattle Grain Exchange

Kansas City Board of Trade

Duluth Board of Trade
Minneapolis Grain Exchange

Memphis Board of Trade
Clearing Association
New Orleans Cotton Exchange

New York Cotton Exchange
New York Mercantile Exchange
New York Produce Exchange
Wool Associates of the New York
Cotton Exchange, Inc.

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• *Chlorophyll a* (Chl a) is the primary photosynthetic pigment in all photosynthetic organisms. It is a green pigment that absorbs light energy in the blue and red regions of the visible spectrum. Chl a is found in the thylakoid membranes of chloroplasts in plants and in the plasma membrane of cyanobacteria and algae.

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